

and so occasion remarkable Differences of the Lengths of Day and Night, in the same Revolutions, to Places under the same Parallels of Latitude; a whole Volume might be wrote in the Description, if the Author would descend to Particulars.

VII. *A Machine for sounding the Sea at any Depth, or in any Part, invented by Major Wm. Cock in the Year 1738. in a Voyage to Georgia.*

*Presented April 10.
1746.* THE Draught of this Machine is exhibited in TAB. II. Fig. 1.

wherein

AAAA represent a Trunk of Timber, with a square Hollow, thro' the Centre of which passes the square Piece of Timber *BB*.

A Groove on each Side, in which are placed the two Pieces of Iron *CC*; the Foot of each resting on the Pins *DD*, that pass thro' the Trunk; the upper Part of the Irons are hooked to an iron Pin at *E*, which passes thro' the square Piece *BB*; which Piece is hollowed between *H* and *H*, for the Hooks of the Irons *CC* to pass up and down.

When the Weight *F* touches the Ground, the two Irons *CC* sink the Trunk to *G*, which unhooks them at *E*; whereupon they fall off, and leave the Trunk at Liberty to float or rise up again to the Surface.

A Machine of these Dimensions, loaded with an iron Ball, *F*, of 12 Pounds Weight, being let down in

In Water 100 Fathoms deep, will go down to the Bottom, and the Trunk will return in one Minute and three Seconds.

VIII. *A Letter from Mr. J. Breintal to Mr. Peter Collinson, F. R. S. containing an Account of what he felt after being bit by a Rattle-Snake.*

Philadelphia, Feb. 10. 1746.

*Read April 10.
1746.* I AM much obliged to you for your kind Letter; but you injoin me a sad Task. You must know then, that, on the 2d of last *May* in the Afternoon, I took a Turn down to the River; and meeting there some Company, we tarried about two Hours.

I hearing a Bell upon the Top of a steep Hill, which I knew to be the Cows of the People where I then quarter'd, and thinking to drive them home, it being almost in a strait Line thither, went right up the Hill; and as it was stony, sometimes I was ready to fall, so saved myself by my Hands, and got safe very near the Top; where either my Foot slipt, or the Stone under it gave Way, and brought me down upon my Knees. I laid my Hand on a broad Stone to stay myself; and, I suppose, the Snake lay on the opposite Side, and might be offended by some Motion of the Stone, so bit my Hand in an Instant, without any Warning or Sight; then slid under the Stones, and sounded his Rattles.

A section thro' the middle.

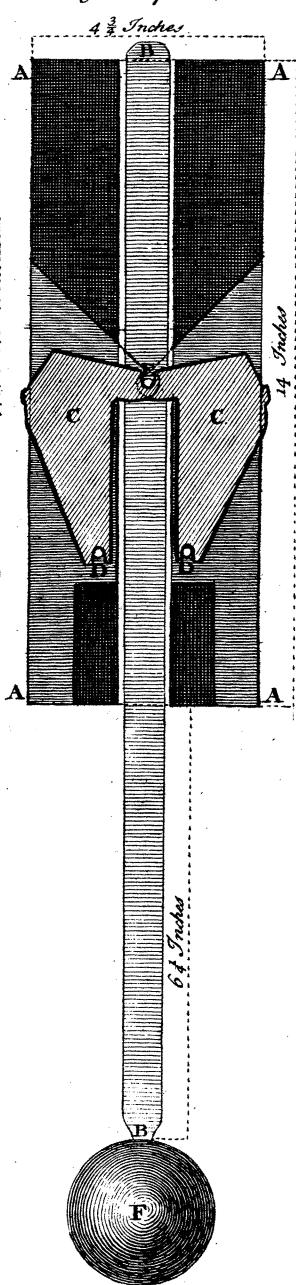


Fig. 1. p. 146.

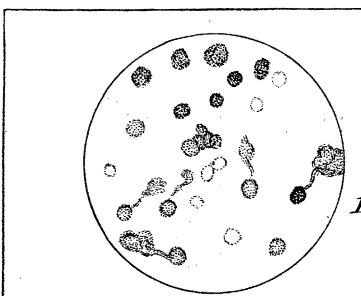


Fig. 2. p. 155.

Ph

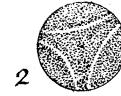


Fig. 3.
p. 167.

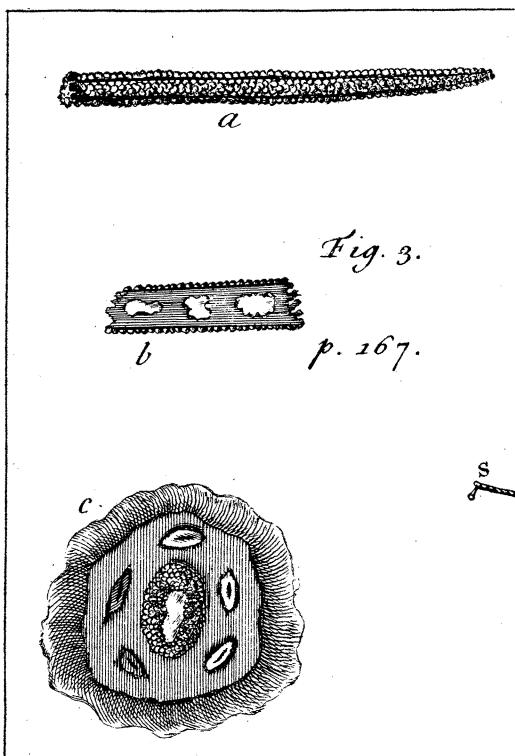


Fig. 4.
p. 169.

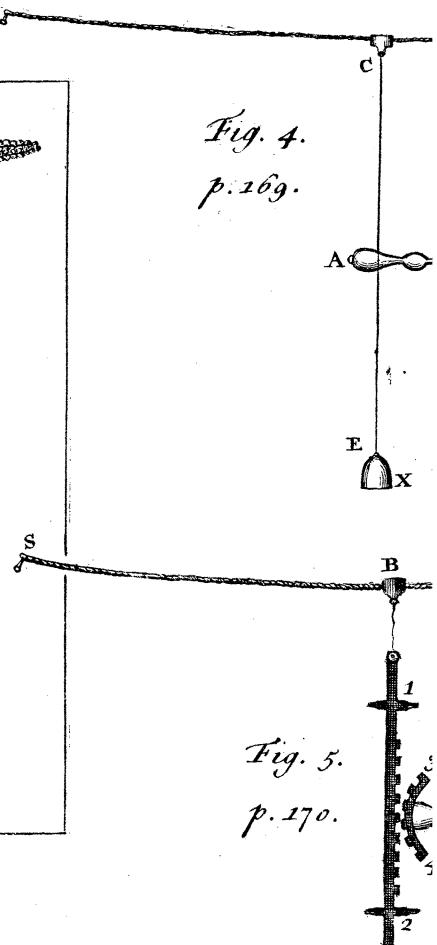
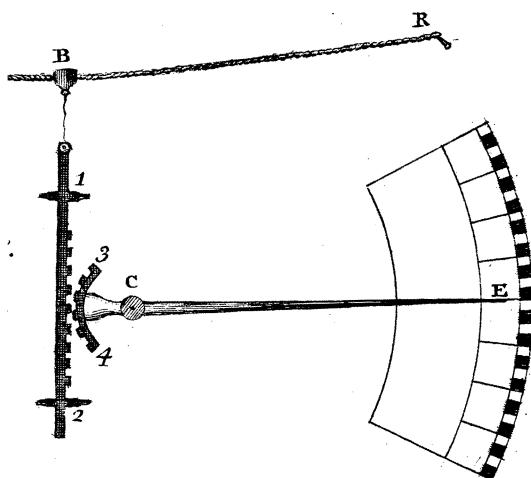
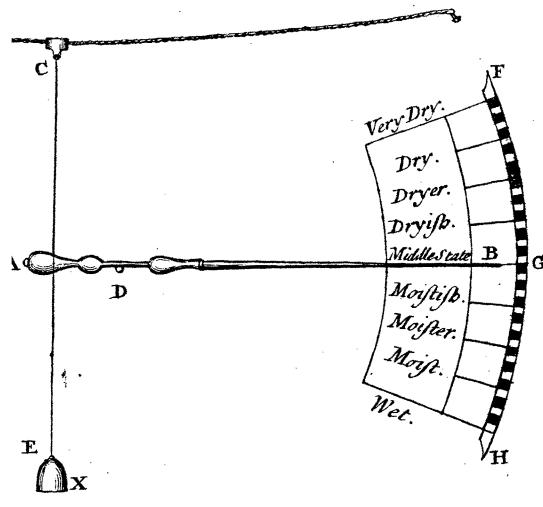
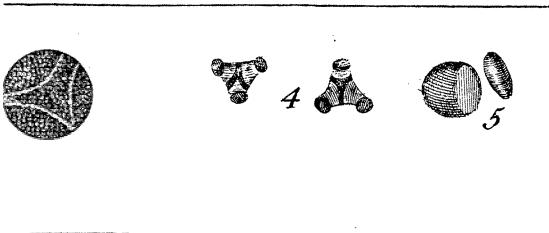


Fig. 5.
p. 170.

Philos. Trans. N° 479. TAB. II.



A. Section thro' the Middle.

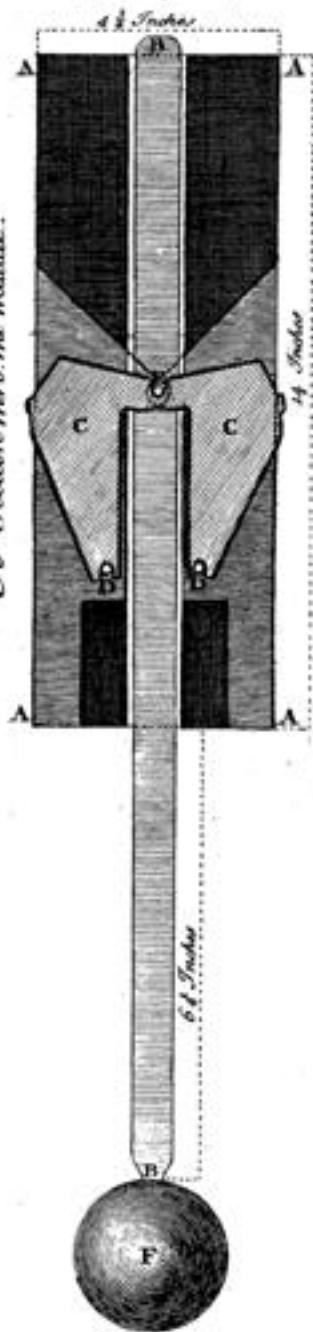


Fig. 1. p. 146.

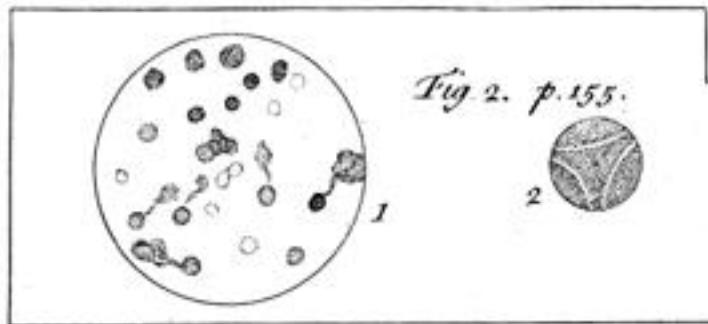


Fig. 2. p. 155.

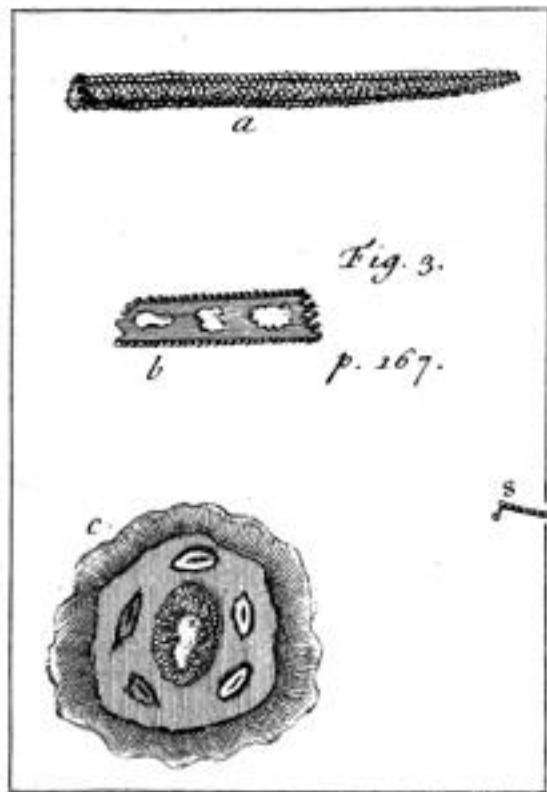


Fig. 3.
p. 167.

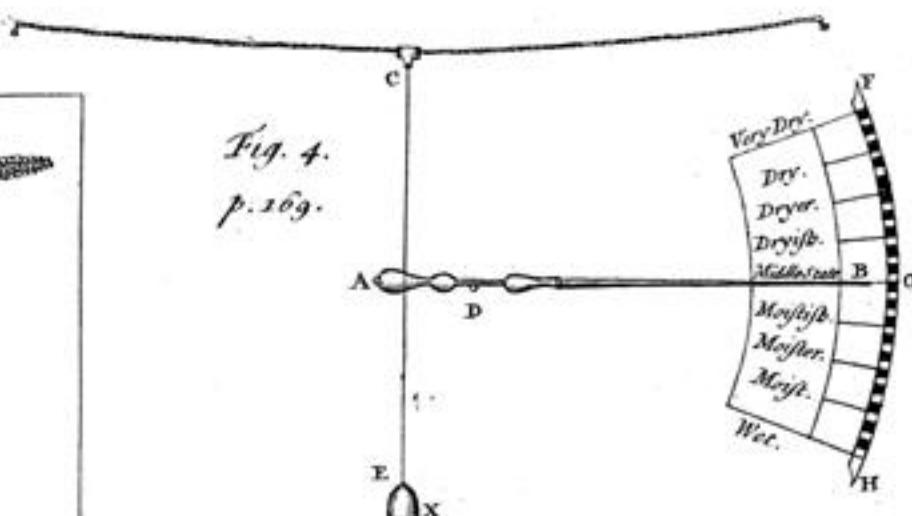


Fig. 4.
p. 169.

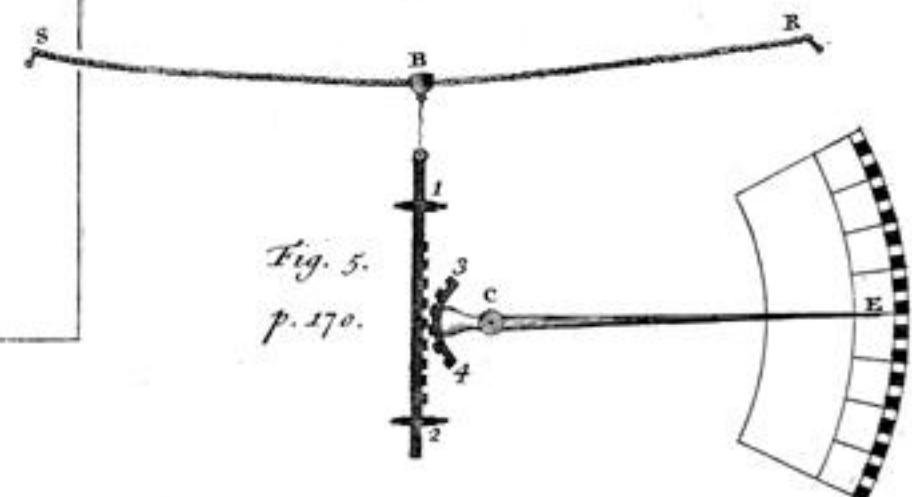


Fig. 5.
p. 170.